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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/675,082 09/28/2000 Jonathan Sidney Edelson

3812

7590 12/20/2002

Borealis Technical Limited
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[REDACTED] EXAMINER

WAKS, JOSEPH

ART UNIT	PAPER NUMBER
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2834

DATE MAILED: 12/20/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.	Applicant(s)	
09/675,082	EDELSON, JONATHAN SIDNEY	
Examiner	Art Unit	
Joseph Waks	2834	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on _____.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.
- 4) Claim(s) 78-293 is/are pending in the application.
4a) Of the above claim(s) 78-222 is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 223-293 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Disposition of Claims

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 14 October 2002 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on 14 October 2002 is: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) Notice of References Cited (PTO-892) 4) Interview Summary (PTO-413) Paper No(s). _____.
2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) Notice of Informal Patent Application (PTO-152)
3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____. 6) Other: _____

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the gearing or other speed changing apparatus as recited in claim 231, the boost converter and switching element as recited in claim 245 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "19" has been used to designate both the control mechanism and converter. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "15" and "12" have both been used to designate the generator. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

4. Figure 9A should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected

drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

5. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: adjustment of the torque in a single adjustment step as recited in claim 226, the set of multiple adjustment steps, as recited in claim 229, the secondary step as recited in claim 230.
6. The amendment filed on October 14, 2002 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: gearing or other speed changing apparatus as recited in claim 231, a direct current generator as recited in claim 235, the generator comprising an alternating current synchronous permanent magnet machine as recited in claim 236, the boost converter and switching element as recited in claim 245.

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Objections

7. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Misnumbered claims 225-295 been renumbered 223-293.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

9. **Claim 226-231, 235-240 and 245** are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Re claims 226, 229, and 230 the control over the adjustable torque load in a single adjustment step, multiple adjustment steps, or in secondary step is not described in the specification.

Re claim 227, the feature of the control mechanism comprising an energy storage unit is not supported by the specification and/or drawings that clearly show the control mechanism 19 and the energy storage system 21 as two separate systems.

Re claim 231, the feature of gearing or other speed changing apparatus is not supported by the specification and/or drawings.

Re claim 235, the feature of the direct current generator is not supported by the specification and/or drawings.

Re claims 236-240, the feature of the alternating current synchronous permanent magnet machine is not supported by the specification and/or drawings.

Re claim 245, the features of the boost converter and switching element are not supported by the specification and/or drawings.

10. **Claim 226-231, 235-240 and 245** are also rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. For the reasons indicated above one skilled in the art would not be able to make and/or use the invention.

11. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

12. **Claims 227, 228 and 231** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 227, "an eventual recipient" and claim 231, "or other speed changing apparatus" render the claims indefinite because they do not clearly set forth the metes and bounds of the patent protection desired.

Re claim 228, "other speed changing apparatus" and "power of somewhat fluctuating nature are indefinite since applicant did not set in the specification the metes and bounds of the energy storage capacity with respect to other energy needs in the system, or the power fluctuations.

Re claim 231, "other speed changing apparatus" is indefinite since it does not clearly set forth the metes and bounds of the patent protection desired.

Claim Rejections - 35 USC § 102

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

14. **Claims 223-293** are rejected under 35 U.S.C. 102(b) as being anticipated by **Maekawa (US 5,703,410)**.

Maekawa discloses a prime mover output control system comprising: a prime mover 6, a generator 7 powered by the prime mover and comprising an adjustable torque on the prime mover, a control mechanism 8 connected to the generator comprising an input Vd for signaling a system power output requirement and controlling the adjustable torque of the generator to effect a product of a prime mover velocity and torque to meet the system output requirement, wherein the torque increases with the increased output and decreases with the decreased output, graphical techniques used to determine the load torque (Re Figure 3), energy storage unit (Re column 2, lines 55-57), the control system mechanism not comprising electricity storage as shown in Figure 1 (i.e. converter 8 supplying the recipient through an inverter 9 with somewhat fluctuating power (Re column 3, lines 6-7) , electronic components 8 and 30 (Re Figures 1 and 2), direct current generator 7, 8, alternating current generator 7.

The limitation of the prime mover comprising a mechanical output comprising a rotational velocity and torque is inherent to Maekawa disclosed engine generator system.

Re claim 223, the generator comprising an adjustable torque on the prime mover is inherent to any prime mover generator system by sheer fact of being electrically connected to

load demand and mechanically connected to the prime mover, thus, adjusting the prime mover torque load in accordance to the system load demand.

Response to Arguments

15. Applicant's arguments filed on October 14, 2002 have been fully considered but they are not persuasive.

In response to applicant's argument that the US 5,703,410 to Maekawa reference fails to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the exclusion of throttle valve as the part of operating regime, the acceleration and deceleration of the engine according to the engine load condition towards a synchronous speed with the generator) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Moreover, applicant admits in his arguments that in certain conditions the use the throttle valve will be required. Furthermore, the invention as claimed requires the control mechanism to effect a product of the prime mover velocity and torque to meet the power output requirements. Opening the throttle valve and bringing the speed of the engine to a required level meet this requirement, thus, effecting the prime mover torque and velocity as claimed. The limitation of meeting the different outputs at non-constant or variable velocity is not in the claim. Furthermore, Maekawa describes in column 5, lines 13-26 that the object of the disclosed control system is to maintain the rotation speed of the engine such that the generator will be rotating at optimal speed without need for changing degree of opening of the throttle valve.

With respect to claim 6, the previous action does not indicate allowability of the claim.

Claim 6 was rejected under 35 USC 112, first paragraph and under 35 USC 102(b) in view of Maekawa.

Conclusion

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Prior Art

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Communication

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Waks whose telephone number is (703) 308-1676. The examiner can normally be reached on Monday through Thursday 8 am to 5 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor R Ramirez can be reached on (703) 308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-1341 for regular communications and (703) 305-1341 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.


JOSEPH WAKS
PRIMARY PATENT EXAMINER
TC-2800

JW
December 14, 2002